

Amendments to the Specification:

Please replace the paragraph beginning at page 9, line 6, with the following rewritten paragraph:

Modified hordothionin proteins are described in U.S. Pat. No. 5,990,389 issued November 23, 1999; U.S. Pat. No. 5,885,801 issued March 23, 1999; U.S. ~~Ser. No. 08/824,382 filed March 26, 1997~~ Pat. No. 5,885,802 issued March 23, 1999; and U.S. Pat. No. 5,703,409 issued December 30, 1997 the disclosures of which are incorporated herein in their entirety by reference.

Please replace the paragraph beginning at page 10, line 9, with the following rewritten paragraph:

Alpha hordothionin has been modified to contain 12 lysine residues in the mature hordothionin peptide, referred to as HT12. (Rao *et al.* 1994 Protein Engineering 7(12):1485-1493 and WO 94/16078 published July 21, 1994, now U.S. Pat. No. 5,990,389 issued November 23, 1999). The disclosure of each of these is incorporated herein by reference in their entirety.

Please replace the paragraph beginning at page 12, line 6, with the following rewritten paragraph:

Derivatives of these genes can be made by site directed mutagenesis to increase the level of preselected amino acids in the encoded polypeptide. For example the gene encoding for the barley high lysine polypeptide (BHL), is derived from barley chymotrypsin inhibitor, U.S. ~~Ser. No. 08/740,682 filed November 1, 1996~~ and PCT/US97/20441 filed October 31, 1997 WO 98/20133 published May 14, 1998, the disclosures of each are which is incorporated herein by reference. The gene encoding for the enhanced soybean albumin gene (ESA), is derived from soybean 2S albumin described in U.S. Pat. No. 5,850,016, the disclosure of which is incorporated herein in its entirety by reference.

Please replace the paragraph beginning at page 29, line 1, with the following rewritten paragraph:

Similarly, genes encoding other derivatives of hordothionine, as described above, (See U.S. Ser. Nos. ~~08/838,763~~ filed April 10, 1997; ~~08/824,379~~ filed March 26, 1997; ~~08/824,382~~ filed March 26, 1997; U.S. Pat. No. 5,990,389 issued November 23, 1999; U.S. Pat. No. 5,885,801 issued March 23, 1999; U.S. Pat. No. 5,885,802 issued March 29, 1999; and U.S. Pat. No. 5,703,409 issued December 30, 1997), the gene encoding enhanced soybean albumin (ESA) (See U.S. Ser. No. ~~08/618,911~~ U.S. Pat. No. 5,850,016 issued December 15, 1998), and genes encoding BHL and other derivatives of the barley chymotrypsin inhibitor (See U.S. Ser. No. ~~08/740,682~~ filed November 1, 1996 and ~~PCT/US97/20441~~ filed October 31, 1997 WO 98/20133 published May 14, 1998) are constructed by site directed mutagenesis from pBSKP-HT, a subclone of the soybean 2S albumin 3 gene in the pBSKP vector (Stratagene, LaJolla, CA), and a subclone of the barley chymotrypsin inhibitor in the pBSKP vector, respectively.

Please replace the paragraph beginning at page 30, line 9, with the following rewritten paragraph:

In a like manner, expression vectors containing genes encoding other derivatives of hordothionine (See Rao *et al.* 1994 Protein Engineering 7(12):1485-1493, and WO 94/16078 published July 21, 1994, now U.S. Pat. No. 5,990,389 issued November 23, 1999), the gene encoding enhanced soybean albumin (ESA) (See U.S. Ser. No. ~~08/618,911~~, Pat. No. 5,850,016), and genes encoding BHL and other derivatives of the barley chymotrypsin inhibitor (See U.S. Ser. No. ~~08/740,682~~ filed November 1, 1996 and ~~PCT/US97/20441~~ filed October 31, 1997 WO 98/20133 published May 14, 1998) are constructed by insertion of the corresponding coding sequences between the promoter and terminator of the 27kD gamma zein gene, the globulin1 gene and the waxy gene, respectively. Resulting chimeric genes are for

Serial No. 09/020,716
Group Art Unit: 1638

25
example gz::ESA::gz and gz::BHL::gz, designated as PHP11260 (Seq. ID 6) and as PHP11427 (Seq. ID 7), respectively.

Please replace the paragraph beginning at page 37, line 21, with the following rewritten paragraph:

26
Similarly, antisera are produced, ELISA assays are developed and assays of seed from transformed plants are performed for other derivatives of hordothionine (See Rao *et al.* 1994 Protein Engineering 7(12):1485-1493, and WO 94/16078 published July 21, 1994, now U.S. Pat. No. 5,990,389 issued November 23, 1999), for the enhanced soybean albumin (ESA) (See U.S. Ser. No. ~~08/618,911~~ Pat. No. 5,850,016) and for BHL and other derivatives of the barley chymotrypsin inhibitor (See U.S. Ser. No. ~~08/740,682~~ filed November 1, 1996 and PCT/US97/20441 filed October 31, 1997 WO 98/20133 published May 14, 1998), respectively.